

In re Application of:
Rheins and Morhenn
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Filed: August, 17, 1999
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PATENT
Attorney Docket No.: DERM1100-1

In the Claims

Please cancel claims 73, 74, 75, 79, 84, 88-95, 97-106, and 111-148, without prejudice or disclaimer.

Please enter the following rewritten claims as follows:

64. (Thrice amended) A method for obtaining a nucleic acid sample from a skin sample, the method comprising:

(a) applying an adhesive tape to the skin and removing the adhesive tape from the skin such that a sample comprising a nucleic acid adheres to the adhesive tape after its removal, thereby obtaining a skin sample comprising a nucleic acid; and

(b) isolating or detecting the nucleic acid from the skin sample.

65. (Thrice amended) The method of claim 64, wherein the skin sample comprises stratum corneum cells and cells associated with the stratum corneum which are removed by application and removal of the adhesive tape.

70. (Thrice amended) The method of claim 64, wherein the skin sample is isolated by applying the adhesive tape to the skin between one and twenty five times to obtain the skin sample.

71. (Thrice amended) The method of claim 64, wherein the skin sample is isolated by applying the adhesive tape to the skin between one and two times to obtain the skin sample.

72. (Thrice amended) The method of claim 64, wherein the sample is isolated by one application of an adhesive tape to an outer layer of the skin.

76. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that comprises a DNA.

F³
77. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that comprises an RNA.

78. (Twice amended) The method of claim 77, wherein the isolating or detecting comprises isolating or detecting an RNA that comprises an mRNA.

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80. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes a cytokine.

81. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes an interleukin.

F⁵
82. (four-times amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes interleukin-1 (IL-1), interleukin-2 (IL-2), interleukin-3 (IL-3), interleukin-4 (IL-4), interleukin-5 (IL-5), interleukin-6 (IL-6), interleukin-8 (IL-8), interleukin-10 (IL-10), interleukin-12 (IL-12), interleukin-13 (IL-13), granulocyte macrophage colony stimulating factor (GM-CSF), or an interferon, or any combination thereof.

F⁶
83. (Twice amended) The method of claim 78, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes an inflammatory mediator.

F⁷
149. (Twice amended) A method for determining an expression profile in a skin sample, the method comprising:

(a) applying at least one application of an adhesive tape to a sample site on the skin and removing the adhesive tape from the skin such that a sample comprising a

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Fig.
cont.

ribonucleic acid (RNA) adheres to the adhesive tape after its removal, thereby obtaining a skin sample comprising RNA; and

(b) isolating or detecting RNA from the skin sample of step (a), thereby determining the expression profile in the skin sample.

150. (Twice amended) The method of claim 149, wherein the skin sample is isolated by applying the adhesive tape to the sample site of the skin between one and twenty five times to obtain the skin sample.

151. (Twice amended) The method of claim 149, wherein the adhesive tape is applied and removed such that the sample comprises mRNA.

153. (Twice amended) The method of claim 149, wherein the adhesive tape is applied and removed such that the sample comprises RNA encoding a cytokine.

156. (Twice amended) The method of claim 149, wherein the skin sample is isolated by applying the adhesive tape to the sample site of the skin between one and two times to obtain the skin sample.

Please add the following claims:

--157. The method of claim 64, wherein the adhesive tape is applied to skin from a subject afflicted with a disease, disorder, or inflammatory reaction.

158. The method of claim 157, wherein the adhesive tape is applied to skin from a subject afflicted with dermatitis.

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159. The method of claim 64, wherein the method further comprises contacting the skin with an external agent that causes dermatitis before applying the adhesive tape to the skin.

160. The method of claim 159, wherein the method comprises contacting the skin with sodium lauryl sulfate before applying the adhesive tape to the skin.

161. The method of claim 64, wherein the adhesive tape is applied and removed from the skin such that the sample comprises cells associated with the stratum corneum.

162. The method of claim 64, wherein the skin sample is isolated by applying the adhesive tape to the skin one or more times to obtain the skin sample.

163. The method of claim 149, wherein the skin sample is isolated by applying the adhesive tape to the skin one or more times to obtain the skin sample.--



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EXHIBIT B:

CLAIMS AS THEY WILL STAND UPON ENTRY OF THE AMENDMENT

64. (Thrice amended) A method for obtaining a nucleic acid sample from a skin sample, the method comprising:

- F¹
- (a) applying an adhesive tape to the skin and removing the adhesive tape from the skin such that a sample comprising a nucleic acid adheres to the adhesive tape after its removal, thereby obtaining a skin sample comprising a nucleic acid; and
 - (b) isolating or detecting the nucleic acid from the skin sample.

65. (Thrice amended) The method of claim 64, wherein the skin sample comprises stratum corneum cells and cells associated with the stratum corneum which are removed by application and removal of the adhesive tape.

F²

70. (Thrice amended) The method of claim 64, wherein the skin sample is isolated by applying the adhesive tape to the skin between one and twenty five times to obtain the skin sample.

71. (Thrice amended) The method of claim 64, wherein the skin sample is isolated by applying the adhesive tape to the skin between one and two times to obtain the skin sample.

72. (Thrice amended) The method of claim 64, wherein the sample is isolated by one application of an adhesive tape to an outer layer of the skin.

F³

76. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that comprises a DNA.

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F3
cont.
77. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that comprises an RNA.

78. (Twice amended) The method of claim 77, wherein the isolating or detecting comprises isolating or detecting an RNA that comprises an mRNA.

F4
79. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes a cytokine.

80. (Twice amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes an interleukin.

F5
81. (four-times amended) The method of claim 64, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes interleukin-1 (IL-1), interleukin-2 (IL-2), interleukin-3 (IL-3), interleukin-4 (IL-4), interleukin-5 (IL-5), interleukin-6 (IL-6), interleukin-8 (IL-8), interleukin-10 (IL-10), interleukin-12 (IL-12), interleukin-13 (IL-13), granulocyte macrophage colony stimulating factor (GM-CSF), or an interferon, or any combination thereof.

F6
82. (Twice amended) The method of claim 78, wherein the isolating or detecting comprises isolating or detecting a nucleic acid that encodes an inflammatory mediator.

83. (Reiterated) The method of claim 64, further comprising identifying or quantifying the nucleic acid.

84. (Reiterated) The method of claim 83, wherein identifying or quantifying the nucleic acid is by a polymerase chain reaction (PCR).

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87. (Reiterated) The method of claim 85, wherein identifying or quantifying the nucleic acid is by hybridization with a polynucleotide probe.

149. (Twice amended) A method for determining an expression profile in a skin sample, the method comprising:

F7 (a) applying at least one application of an adhesive tape to a sample site on the skin and removing the adhesive tape from the skin such that a sample comprising a ribonucleic acid (RNA) adheres to the adhesive tape after its removal, thereby obtaining a skin sample comprising RNA; and

(b) isolating or detecting RNA from the skin sample of step (a), thereby determining the expression profile in the skin sample.

F8 150. (Twice amended) The method of claim 149, wherein the skin sample is isolated by applying the adhesive tape to the sample site of the skin between one and twenty five times to obtain the skin sample.

151. (Twice amended) The method of claim 149, wherein the adhesive tape is applied and removed such that the sample comprises mRNA.

152. (Reiterated) The method of claim 149, wherein steps a) and b) are performed repeatedly over time to identify changes in the expression pattern at the sample site.

153. (Twice amended) The method of claim 149, wherein the adhesive tape is applied and removed such that the sample comprises RNA encoding a cytokine.


154. (Reiterated) The method of claim 149, wherein RNA is detected by probing RNA of the sample with a polynucleotide complementary to a sequence of interest.

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155. (Reiterated) The method of claim 149, wherein RNA is detected using a DNA array.

156. (Twice amended) The method of claim 149, wherein the skin sample is isolated by applying the adhesive tape to the sample site of the skin between one and two times to obtain the skin sample.


Please add the following claims:

--157. The method of claim 64, wherein the adhesive tape is applied to skin from a subject afflicted with a disease, disorder, or inflammatory reaction.

158. The method of claim 157, wherein the adhesive tape is applied to skin from a subject afflicted with dermatitis.

159. The method of claim 64, wherein the method further comprises contacting the skin with an external agent that causes dermatitis before applying the adhesive tape to the skin.

160. The method of claim 159, wherein the method comprises contacting the skin with sodium lauryl sulfate before applying the adhesive tape to the skin.

161. The method of claim 64, wherein the adhesive tape is applied and removed from the skin such that the sample comprises cells associated with the stratum corneum.

162. The method of claim 64, wherein the skin sample is isolated by applying the adhesive tape to the skin one or more times to obtain the skin sample.

163. The method of claim 149, wherein the skin sample is isolated by applying the adhesive tape to the skin one or more times to obtain the skin sample.--
